## IN THE CLAIMS:

## 1. (cancelled)

- 2. (currently amended) The sensor assembly of claim 11 wherein the at least one magneto-sensing element produces an output signal indicative of angular position in response to one of the following components of magnetic flux from the magnet: an axial flux component and a radial flux component.
- 3. (currently amended) The sensor assembly of claim 11 wherein said at least one magneto-sensing element comprises a pair of magneto-sensing elements co-planarly positioned 180 degrees apart around the magnet.
- 4. (original) The sensor assembly of claim 3 further comprising a subtractor for differentially combining the respective output signals from the pair of magneto-sensing elements, wherein the resultant signal comprises a linearly varying signal indicative of angular position.
- 5. (original) The sensor assembly of claim 3 further comprising a summer for additively combining the respective output signals from the pair of magneto-sensing elements, wherein the resultant signal comprises a sinusoidally varying signal indicative of angular position.

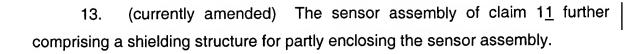
## 6. (cancelled)

7. (currently amended) The sensor assembly of claim 611 wherein the cylindrical magnet comprises a bore concentrically situated relative to an outer surface of the cylinder.

- 8. (currently amended) The sensor assembly of claim 611 wherein the cylindrical magnet comprises a bore eccentrically situated relative to an outer surface of the cylinder.
  - 9. (cancelled)
  - 10. (cancelled)
- assembly for sensing angular position of an object, the assembly comprising:

  at least one magneto-sensing element having a first axis of rotation; and
  a magnet having a second axis of rotation, wherein at least one of the
  magnet and the magneto-sensing element are rotatable relative to the other,
  wherein the respective axes of rotation of the magneto-sensing element and the
  magnet are non-coincident with respect to one another, and further wherein the
  magnet comprises a cylindrical magnet magnetized along a radial direction and
  the at least one magneto-sensing element is positioned adjacent along the length
  of the cylinder to sense a radial flux component.
- assembly for sensing angular position of an object, the assembly comprising:

  at least one magneto-sensing element having a first axis of rotation; and
  a magnet having a second axis of rotation, wherein at least one of the
  magnet and the magneto-sensing element are rotatable relative to the other,
  wherein the respective axes of rotation of the magneto-sensing element and the
  magnet are non-coincident with respect to one another, and further wherein the
  magnet comprises a cylindrical magnet magnetized along a radial direction and
  the at least one magneto-sensing element is positioned adjacent along at least
  one of the bases of the cylinder to sense an axial flux component.



- 14. (cancelled)
- 15. (cancelled)
- 16. (cancelled)
- 17. (cancelled)
- 18. (cancelled)
- 19. (cancelled)
- 20. (cancelled)
- 21. (cancelled)
- 22. (cancelled)
- 23. (currently amended) The sensor assembly of claim 14A sensor assembly for sensing angular position of an object, the assembly comprising:

at least one magneto-sensing element; and

a cylindrical magnet having an axis of rotation and a geometrical axis, wherein the magnet is rotatable relative to the at least one magneto-sensing element, wherein the geometric and rotation axes of the magnet are non-coincident with respect to one another, and further wherein the magnet comprises a cylindrical magnet magnetized along a radial direction and the at least one magneto-sensing element is positioned adjacent along the length of the cylinder to sense a radial flux component.

24. (currently amended) The sensor assembly of claim 14A sensor assembly for sensing angular position of an object, the assembly comprising:

at least one magneto-sensing element; and

a cylindrical magnet having an axis of rotation and a geometrical axis, wherein the magnet is rotatable relative to the at least one magneto-sensing element, wherein the geometric and rotation axes of the magnet are non-coincident with respect to one another, and further wherein the magnet comprises a cylindrical magnet magnetized along a radial direction and the at least one magneto-sensing element is positioned adjacent along at least one of the bases of the cylinder to sense an axial flux component.

## 25. (cancelled)

- 26. (new) The sensor assembly of claim 12 wherein the at least one magneto-sensing element produces an output signal indicative of angular position in response to one of the following components of magnetic flux from the magnet: an axial flux component and a radial flux component.
- 27. (new) The sensor assembly of claim 12 wherein said at least one magneto-sensing element comprises a pair of magneto-sensing elements coplanarly positioned 180 degrees apart around the magnet.
- 28. (new) The sensor assembly of claim 12 wherein the cylindrical magnet comprises a bore concentrically situated relative to an outer surface of the cylinder.
- 29. (new) The sensor assembly of claim 12 wherein the cylindrical magnet comprises a bore eccentrically situated relative to an outer surface of the cylinder.

30. (new) A sensor assembly for sensing angular position of an object, the assembly comprising:

at least one-magneto-sensing element having a first axis of rotation;

a cylindrical magnet having a second axis of rotation, wherein at least one of the magnet and the magneto-sensing element are rotatable relative to the other, wherein the respective axes of rotation of the magneto-sensing element and the magnet are non-coincident and parallel with respect to one another, wherein the magnet is magnetized along one of the following directions: an axial direction and a radial direction, and further wherein the cylindrical magnet comprises an eccentrically situated bore; and

a rotatable shaft affixedly mounted in said eccentrically situated bore.

- 31. (new) The sensor assembly of claim 30 wherein the at least one magneto-sensing element produces an output signal indicative of angular position in response to one of the following components of magnetic flux from the magnet: an axial flux component and a radial flux component.
- 32. (new) The sensor assembly of claim 30 wherein said at least one magneto-sensing element comprises a pair of magneto-sensing elements coplanarly positioned 180 degrees apart around the magnet.
- 33. (new) The sensor assembly of claim 30 wherein the magnet comprises a cylindrical magnet magnetized along an axial direction and the at least one magneto-sensing element is positioned adjacent along the length of the cylinder to sense an axial flux component.
- 34. (new) The sensor assembly of claim 30 wherein the magnet comprises a cylindrical magnet magnetized along an axial direction and the at least one magneto-sensing element is positioned adjacent along at least one of the bases of the cylinder to sense a radial flux component.

- 35. (new) The sensor assembly of claim 30 wherein the magnet comprises a cylindrical magnet magnetized along a radial direction and the at least one magneto-sensing element is positioned adjacent along the length of the cylinder to sense a radial flux component.
- 36. (new) The sensor assembly of claim 30 wherein the magnet comprises a cylindrical magnet magnetized along a radial direction and the at least one magneto-sensing element is positioned adjacent along at least one of the bases of the cylinder to sense an axial flux component.
- 37. (new) The sensor assembly of claim 30 further comprising a shielding structure for partly enclosing the sensor assembly.
- 38. (new) A sensor assembly for sensing angular position of an object, the assembly comprising:

at least one magneto-sensing element;

a cylindrical magnet having an axis of rotation and a geometrical axis, wherein the magnet is rotatable relative to the at least one magneto-sensing element, wherein the geometric and rotation axes are non-coincident and parallel with respect to one another, wherein the magnet is magnetized along one of the following directions: an axial direction and a radial direction, and further wherein the cylindrical magnet comprises an eccentrically situated bore; and

a rotatable shaft affixedly mounted in said eccentrically situated bore.